

Northgate Mall Parking Lot

Natural System Feasibility Study

Question:

How can natural drainage be integrated into parking lot redevelopment to facilitate successful retail growth and benefit creek health?

Seattle Public Utilities

October 25, 2004

Background and purpose of evaluation

- Northgate Framework Resolution
 - SPU to identify “natural drainage strategies...that can be incorporated into development projects”
- Simon Development Agreement
 - “Simon will consider incorporating natural drainage techniques into its approach to required landscaping and stormwater management”

SPU Business Case Process

- Costs—construction and lifecycle
- Benefits—drainage, plus social, environmental
- Recommend potential incentives such as
 - regulatory credit
 - discounted products
 - rate reductions

Key evaluation criteria

- Technically sound and feasible
- Cost-effective
- Maintain proposed number of surface parking stalls
- Respect tenant agreements
- Approved by SPU's Asset Management Committee

Site conditions, project proposal and key parameters

- Redevelop 20 acres of parking
- Add 6 building pads
- Slopes 5-8% towards south west
- Maintain 4 spaces/1,000 sf parking ratio

Code requirements

Stormwater

- Detain 2, 25, 100 year storm
- Treat 6-month water quality storm

Parking

- Stall and aisle size requirements
- 35% compact stalls

Landscape

- 10' landscaped pedestrian pathways separating parking areas

NDS overview, goals and technologies

- Reduce volume
- Manage everyday storms
- Dispersed systems
- Integrated into site design
- Infiltrate, slow and filter water

Strategies generated by workshop

Goal: eliminate or reduce centralized treatment facility by integrating natural drainage systems as follows:

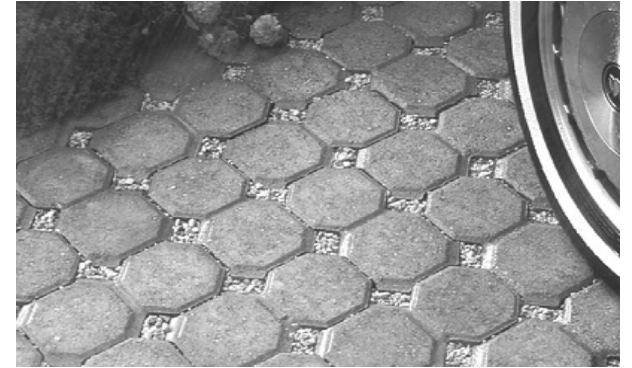
1. Use existing landscape planters
2. Swales integrated into parking aisles
3. Unit pavers along retail drive
4. Porous asphalt in lower use zones

Natural system swales in parking aisles



PCC Annex (SE Water Ave.)

Unit paving along retail drive



Porous asphalt in lower use zones



Next steps

- Evaluate feasibility
- Evaluate performance
- Evaluate cost and benefits
- Develop recommendations and incentives

Schedule

- 10/25 Subcommittee presentation
- 10/26 Stakeholder presentation
- 11/9 Community Forum and Discussion
- 11/18 Stakeholder Advisory Memo due
- 12/8 SPU Recommendation Approval